

ERIC Document Resume		See Instruction Sheet		DATE OF RESUME 7/7/65		DATE RECEIVED	
A. PUBLICATION DATA							
1. ERIC NUMBER ED0000932		2. ORIGINAL CONTROL NO(S). 8583		3. IDENTIFICATION NO.		DO NOT WRITE IN SPACE BELOW	
4. AUTHOR(S): Ashbaugh, William H.						MICROFILM COPY AVAILABLE YES ☒ NO ☐	
5. TITLE OF DOCUMENT ABSTRACTED: The Effect Upon Achievement of Written Responses to Programmed Learning Material for Students of Differing Academic Ability						COPYRIGHT GRANTED YES ☐ NO ☒	
6. PUBLICATION TITLE: Penn State Review of Educational Research						COPYRIGHT RELEASE FILED YES ☐ NO ☐	
7. EDITOR(S): N.A.				8. PLACE OF ORIGIN ORG. Penn State U. ST. University Park, Pa. CITY, STATE TELE. EXT. INST/LOC CODE		TYPE OF REPORT PROPOSAL ☐ IN-PROGRESS ☐ FINAL ☐ FOLLOW-UP ☐	
9. PUBLISHER OR SOURCE The Penn State University				OTHER ERIC REFERENCES:			
10. VOL. 15	11. PAGES 1	12. MO./YR May 63	13. TOTAL PP. 1	ERIC SATELLITE CODE			
B. INDEXING DATA							
14. SUBJECT AREA				15. TYPE OF ENDEAVOR experimental study and abstract of doctoral dissertation			
16. INDEXING TERMS (6-12)							
experimental studies G-23		programmed learning P-20A					
abstracts R-01		programmed texts P-21		ability R-00			
teaching methods Y-25		students Y-15		achievement R-04			
17. ABSTRACT (MAX. 250 WORDS)							

In this study, two hypotheses were tested: (1) The requirement of overt (written) responses to the program interferes with learning for students of high ability, and (2) the requirement of overt (written) responses to the program facilitates learning for students of low ability. The hypotheses were tested with two different experiments which followed the same procedures but utilized two different programs. The study was initiated as a result of the investigator's observations that although a fundamental aspect of most programmed learning materials is its requirement that the student make an overt response, the majority of studies which have compared overt and covert responses to programmed material do not find superior achievement for the groups which produced overt responses.

ERIC No.	18. SOURCE OF ABSTRACT		
	C. FUNDING DATA		
	19. SUPPORTING ORGANIZATION	20. DIVISION OR DEPT.	21. CONTRACT NO. PROJECT NO.
		22. TOTAL COST OF PROJECT	
			23. DURATION OR PROJECT

PENN STATE REVIEW OF EDUCATIONAL RESEARCH

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education

This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.



ED0000932

MAY 1963
VOL XV

TABLE OF CONTENTS

<u>Abstracts of Doctoral Theses</u>	<u>Page</u>
Ashbaugh, William H., The Effect Upon Achievement of Written Responses to Programed Learning Material for Students of Differing Academic Ability	1
Bernardo, Rose Ann, Cultural Backgrounds of Students and Co-operating Teachers as Related to Attitudes Toward Children, Problems of Student Teaching, and Achievement of Student Teachers	2
Berry, Henry Wadswath, A Guide for the Development of a Program of Education for Educable Mentally Retarded Children in South Carolina	3
Calder, Robert W., Factors Influencing Male Music Education Graduates of Certain Pennsylvania Institutions of Higher Education to Leave or Not Enter the Profession	4
Cooper, Eugene B., Patient-Therapist Relationships and Concomitant Factors in Stuttering Therapy	5
Doerter, James Miller, Influences of College Art Instructors Upon Their Students' Painting Styles	6
Gerstman, Hubert L., Relationships Between Motivation as Measured by the MPT and Progress in Speech Therapy	7
Giusti, Joseph Paul, Prediction of Academic Success in a College of Education Based on High School Curriculum Experiences ...	8
Godlasky, Charles A., The Development of Fitness in College Women	9
Griner, Ned, Implications for Art Education of Socioeconomic Factors Influencing Personal Preferences in Respect to Utilitarian Objects	10
Groves, William T., A Comparison of the Effectiveness of Two Counseling Procedures with Selected Sixth Graders	11
Heimer, Ralph T., The Preparation of a Program in Contemporary Algebra and a Study of Its Effectiveness for Group Instruction Under Paced Conditions	12
Hillkirk, John Martin, Action Research as Applied in Curriculum Development, Grades K - 12, A Case Study	13
Knauer, Daniel Bitler, Legal Principles Controlling Outcomes of Controversies in Teacher Dismissal and Suspension in Pennsylvania	14
Kosoloski, John E., Jr., A Quantitative Analysis of Pennsylvania Public School Utilization of the Provisions of Title III of the National Defense Education Act of 1958	15
Kraybill, Wilbur K., The Relationship of Counselor, Principal, and Teacher Role Consensus and the Quality of Senior High School Guidance Services	16

TABLE OF CONTENTS (continued)

	<u>Page</u>
LaDue, Donald C., Social Studies Interests of Second, Fourth and Sixth Grade Children as Evidenced in Their Art, Writing, Oral Expression and Selection of Reading Materials	17
Legg, Otto Pearl, Programmed-Instruction and Lecture-Discussion Methods Compared for Effectiveness in Teaching Agricultural Finance to Vocational Agriculture Students	18
Loftis, Helen Ada, Identifying Professional Commitment and Measuring Its Extent Among Selected Members of the Teaching Profession	19
Logan, John Blair, The Relationship Between Teachers' Attitudes Toward Supervisors and Certain Selected Variables That Might Affect Their Attitude	20
Long, John A., Jr., Some Aspects of an Oral-Visual Presentation of an Achievement Test to Educable, Mentally Retarded Pupils . .	21
McHale, William Joseph, Some Variables Relating to Three-Dimensional and Two-Dimensional Art Performances: A Comparative Study	22
Meisgeier, Charles Henry, Variables Which May Identify Successful Student Teachers of Mentally or Physically Handicapped Children.	23
Miller, Raymond Earl, A Study of the Effects of Three Teaching Methods on the Learning of Selected Topics in a College Physical Science Course	24
Muntone, John C., The Effects of Variables in Instructional Television on Acquisition of Information and Attitudes	25
Peifer, John Edgar, The Development of An Attitude Scale to Measure Students' Attitudes Toward Reading in the Secondary School	26
Prichard, Neal W., Selected Factors Affecting School Administrators' and School Board Members' Attitudes Toward Vocational Trade and Industrial Education in Pennsylvania	27
Robertson, James Everett, The Effectiveness of a Selected Set of Books in the Study of a Unit in Twelfth Grade American History . .	28
Schuler, Nevin D., The Effect of the Administration of Two Federal Laws on Secondary Mathematics in Selected States	29
Sharkan, William Walter, An Evaluation of the Team Organization Plan of Staff Utilization in Relationship to the Educational Development of Students in the Junior High Schools of Allentown, Pennsylvania	30
Stine, Ray Mervin, An Investigation of Individualized Reading and Basal Reading in a Junior High School	31
Stone, Paul L., Benefits and Employment Conditions Offered by Pennsylvania Public Schools and Their Effects Upon Securing and Retaining Teachers	32

TABLE OF CONTENTS (continued)

	<u>Page</u>
Teed, Truman Henry, The Relationship of the Two-Dimensional and Three-Dimensional Creative Art Expressions of the Adolescent	33
Thompson, Glenn Willard, Changes in Word Recognition Threshold as a Function of Perceptual Learning in a Group of Mildly Mentally Retarded Subjects	34
Treon, Raymond S., The Effect of the Administrative Procedures of Postponed and Nonpostponed Admission Upon Personality and Achievement	35
Vannan, Donald Antrim, Methods of Identifying Community Power Structures Utilized by Chief School Administrators in Selected School Districts of Pennsylvania	36
Walker, Robert W., Development of a Vocational Agriculture Interest Inventory for Guidance of Eighth Grade Students	37
Weaver, Frank Byrd, The Effect of a Teachers' In-Service Education Program on Pupils' Adjustments	38
Weaver, V. Phillips, Basic American History Generalizations Necessary for the Social Studies Curriculum in the Elementary Grades	39
Wiley, Robert W., A Comparative Evaluation of the Roles of Ministers, School Counselors, Parents and Others in Assisting Youth with Life-Work Selection Problems	40
Wakin, Bayshea Bertha, An Evaluation of the Family Finance Workshops at the Pennsylvania State University	41
Wink, Charles F., Mental Retardation and Learning Under Symbolic Reinforcement in View of Self-Acceptance	42
Young, William, Influence of Certain Factors Related to Academic Performance of Transfer Students Admitted to the Pennsylvania State University	43

Dr. Hugh M. Davison, Editor
Professor of Educational Research

Dr. Franklin A. Miller
Head, Department of Education

Dr. Abram W. VanderMeer
Dean, College of Education

The Pennsylvania State University
May 1963

The Effect Upon Achievement of Written Responses
to Programed Learning Material for Students
of Differing Academic Ability

William H. Ashbaugh

A fundamental aspect of most programed learning material is its requirement that the student make an overt response. However, the majority of studies which have compared overt with covert responses to programed material do not find superior achievement for the groups which produced overt responses. A review of the relevant literature suggests the hypothesis of the present dissertation that: 1) the requirement of overt (written) responses to the program interferes with learning for students of high ability; and 2) the requirement of overt (written) responses to the program facilitates learning for students of low ability.

This hypothesis was tested by comparing: a) the achievement of high ability students who responded overtly with the achievement of high ability students who responded covertly; and b) the achievement of low ability students who responded overtly with the achievement of low ability students who responded covertly.

These comparisons were made for the scores on a post test and for the scores made on a Sigma Criterion Frames Test. The items in this Sigma Criterion Frames Test were taken as soon as the student had completed the particular frames which presented the material necessary to answer that question. This test is therefore a measure of immediate learning.

The hypothesis was tested with two different experiments which followed the same procedures but which utilized two different programs.

One hundred and twenty students used one of the programs. A second group of two hundred and thirty-eight students used the other program.

The practical implication of the present dissertation would seem to be that in terms of immediate achievement students who responded covertly performed at least as well as students who responded overtly and students who responded covertly spent significantly less time in reaching the same level of achievement.

This conclusion would seem to apply to both ends of the ability continuum.

ED000932

Cultural Backgrounds of Students and Cooperating Teachers
as Related to Attitudes Toward Children, Problems of Student Teaching,
and Achievement of Student Teachers

Rose Ann Bernardo

A sixteen item questionnaire was designed to elicit information concerning the family background, home environment, educational training, and youth activities of the student and cooperating teachers. The Allport-Vernon-Lindzey Study of Values Test supplemented the information obtained in the Personal Data Questionnaire. The Minnesota Teacher Attitude Inventory was adopted to measure the students' and cooperating teachers' attitudes toward children. A Student Teacher Achievement Scale, by Troisi, was used to rate the achievement of the students. A Spontaneous Written Response provided information relevant to problems that arose during the ten-week student teaching period.

The population consisted of sixty-five student-cooperating teacher pairs in Pennsylvania.

It was found, at the .01 level, that a greater number of problems were reported by cooperating teachers when their cultural backgrounds were quite different from their student teachers'. It was determined that a greater number of cooperating teachers reported that interpersonal problems arose when their cultural backgrounds were quite different from their student teachers'.

It is recommended that in the placement of the student teacher, the cultural backgrounds of the student-cooperating teacher pair should be considered. The descriptive analysis of the problems reported by the students and cooperating teachers indicates that university personnel should conduct seminars for students and cooperating teachers in which understanding of each other be emphasized as well as guidance in teaching techniques.

ED000035

A Guide for the Development of a Program of Education
for Educable Mentally Retarded Children in South Carolina

Henry Wadsworth Berry

The study set out to construct a guide for the development of an educational program for the educable mentally retarded children of South Carolina. As a first step, the characteristics of mentally retarded children as indicated by authorities were listed. Next, curriculum guides for the education of mentally retarded children were secured from twenty-six states. These guides were analyzed for indication of the curriculum areas and learning activities proposed for mentally retarded children. The proposals of curriculum areas and learning activities advocated by the authorities on the education of mentally retarded children were also analyzed.

The composite outline was then submitted to forty-four teachers of special classes in South Carolina and to a jury of twelve experts for their indication of the suitability of the curriculum areas and learning activities for mentally retarded children. The resultant synthesis of the thinking of authorities, experts and practitioners is a unique feature of this study.

From the procedures employed in this study and findings presented in Chapter IV, the following conclusions seem warranted:

The justification for the establishment of special classes and curriculum stems from the fact that the provision of social adjustment of educable mentally retarded children is facilitated by such arrangement.

Educational programs suitable for the needs and abilities of mentally retarded children are now in process of development in many states. However, there is still great need in several states, including South Carolina, for the further development of programs for the education of mentally retarded children.

The guide developed in this study may well be utilized in the further definition of educational programs for mentally retarded children, particularly in South Carolina.

Factors Influencing Male Music Education Graduates
of Certain Pennsylvania Institutions of Higher Education
to Leave or Not Enter the Profession

Robert W. Calder

Financial factors, occupational factors, and relationships with administrators were of almost equal importance as primary influences on the decision to leave the profession. Less influential factors concerned quality of public school music and other professional relationships, little influence being accorded factors dealing with the amount of time spent on non-musical activities.

Of 60 possible influences upon the decision to leave, the 10 showing the most significant influence were, in order of importance: (1) opportunity for another position, (2) opportunities for advancement too limited, (3) unsatisfactory maximum salary potential, (4) inadequate physical plant and equipment, (5) beginning salary too low, (6) administration disinterested in and unsympathetic toward music educator's problems, (7) administration seemed to consider the music program primarily for public relations, (8) administration showed a lack of interest in raising musical standards of the school and/or community, (9) unsatisfactory teaching schedule, and (10) students' attitudes not conducive to raising and maintaining musical standards.

Although financial factors were of primary importance, 76 per cent of the respondents indicated that they would not have left for financial reasons alone.

Liberal arts college graduates showed a greater general dissatisfaction than either the university or state college graduates, particularly on "educational" items; teachers who taught five years or more showed a greater general dissatisfaction than teachers who taught three years or less; secondary teachers showed a greater general dissatisfaction than teachers of all grades; and majors in "both" showed a greater general dissatisfaction than either instrumental majors or vocal majors.

Patient-Therapist Relationships and Concomitant Factors in Stuttering Therapy

Eugene B. Cooper

Sixteen stutterers enrolled in the Pennsylvania State University Speech and Hearing Clinic and their eleven therapists were used. The stutterers (subjects) received one hour of individual therapy five days a week for ten weeks. In addition, ten of the subjects received approximately three hours of group therapy per day.

To measure progress in therapy, the Iowa Rating of Severity of Stuttering Scale was used by the subject himself, his therapist, and three judges to obtain pre- and post-therapy measures. The subject also completed the Heineman Anxiety Scale and the Reactions to Speech Situations inventory pre- and post-therapy.

Three measures of affect interchange between subject and therapist were obtained after every fifth therapy session by using Snyder's Patient and Therapist Affect Scales.

On the basis of the present study it may be concluded that: (1) there is a significant positive relationship between patient affect and patient progress in therapy, while no significant relationship exists between therapist affect and patient progress (within the limits of affect found in the present study); (2) there is a positive relationship between certain personality characteristics of patients and of therapists and the amount of affect between patient and therapist; (3) there are significant positive relationships between patient progress and personality characteristics of both the patient and the therapist; and (4) patterns of change in affect both for patients and therapists occur during therapy.

Influences of College Art Instructors Upon Their Students' Painting Styles

James Miller Doerter

The population consisted of a random sample of eight students from five painting classes in two state colleges and the Pennsylvania State University. Each instructor furnished two personal paintings. Each student furnished his first and final paintings of the semester. All students judged by the painting continuum as painting similarly in style to their instructor in the first painting were deleted from the study. All instructors agreed that their students were not limited in their choice of expression or subject during the semester.

Two instruments were constructed. Instrument I was a nine-step stylistic painting continuum differentiating subject matter from extremely visual to extremely non-visual modes of expression. A set of twenty-seven painting reproductions were judged by experts as representative of the nine categories. This continuum was used to position each instructor and each student's first and last paintings. This determined each student's amount and direction of change during the semester.

Eighty-four per cent of the student movement on the continuum was made toward the instructors' positions.

Classes (3) distant from their instructors' positions on the first painting moved significantly closer to the instructors' positions on the final painting.

Classes (2) very close to their instructors' positions on the first paintings changed position very little on the final paintings.

The investigation disclosed the "most creative" students occupied continuum positions closer to their instructors than the mean of the class. This seems to indicate that students may be considered "creative" because they are working more like their instructor than the average student.

This study shows evidence that college painting students are influenced into a stylistic painting expression similar to that of their instructors. This influence seems to be the antithesis of the general objectives of artists and art educators.

Relationships Between Motivation as Measured by the MPT and Progress in Speech Therapy

Hubert L. Gerstman

The Motivation Preference Test (MPT) was created at the Pennsylvania State University in 1960 as part of an initial attempt at assessing the motive preference patterns of speech defective children. A later study demonstrated the reliability of the MPT.

The purpose of the present study was to investigate the relationships between response patterns on scales of the MPT and progress in speech therapy.

A group of 140 public school children with functional articulation speech disorders were tested in the present investigation. These children made a tape recording of a standardized reading passage and were administered the MPT just before or during the first week of speech therapy in a block program. At the end of ten weeks of therapy, the subjects were again recorded reading the same passage.

Further research was indicated, and suggestions were made for examining improvement over a longer period of speech therapy, with intensive analysis of the patterns of response as revealed by the rank order preference for the scales of the MPT. It was also suggested that by observing the subjects over a longer period of time in therapy, the distribution of improvement ratings might be displaced in a positive direction, thus allowing for greater exploration of the relationship of the MPT to a larger number of subjects demonstrating positive progress in speech therapy.

Although the predictive validity of the MPT was not established in the present study, a rejection of the MPT en toto was not indicated by the results.

Prediction of Academic Success in a College of Education
Based on High School Curriculum Experiences

Joseph Paul Giusti

The present study was designed to investigate the relative importance of curriculum experiences in high school for the prediction of academic success in the College of Education of the Pennsylvania State University. The study sought to answer these questions:

What relationship, if any, exists between the grade point average of each high school subject field and the high school index with college grade point average at the end of the freshman year?

Are certain combinations of high school subject fields and high school index significantly superior to others, in a statistical sense, in predicting college grade point average at the end of the freshman year?

What prediction equation would result from the study of the above variables?

The high school records which were used in this study were those of the 397 students who were admitted to the College of Education, on a regular basis, in September of 1960, and who were graduated from an accredited high school not more than three months before that date.

Of the six predictive variables the high school index was found to be the best predictor of college grade point average. This variable correlated significantly better than any other independent variable, that is, none of the high school subject fields selected yielded a correlation with the college grade point average that was higher than that of high school index. The coefficient of correlation which most closely approached that of high school index was that of high school English. Coefficients of correlation established with the criterion ranged from .27 to .47, with high school index and high school English having coefficients of correlation of .47 and .40 respectively.

The Development of Fitness in College Women

Charles A. Godlasky

The purpose of this study was to determine the effect of a vigorous program of physical activities on the development of certain aspects of fitness in college women as measured by scores on the A. A. H. P. E. R. Youth Fitness Test.

More specifically, this study attempted to determine whether the scores on the modified pull-up, sit-up, 50-yard dash, and 600-yard run-walk tests could be raised significantly beyond the norms reported for girls in the Youth Fitness Test Manual. If such scores could be improved significantly at this college age, in contrast to the constantly lowering trend indicated by the national test norms of girls from fourteen to seventeen years of age, the study was then to be extended to determine what per cent of the improvement would still be retained fourteen weeks after the cessation of training.

Levels of strength, speed, and certain types of endurance can be significantly increased by college women during the course of one semester.

The college women, and even the older ones, who participated in this study showed no indication of having approached their physiological limit in the development of strength and endurance, inasmuch as they made significant increases in test scores measuring these aspects of fitness.

A very considerable amount of physical fitness in women, once acquired, may remain for as long as fourteen weeks after vigorous exercise has ceased. This conclusion applied only to the group as a whole. A few subjects failed to maintain any of the acquired fitness.

Implications for Art Education of Socioeconomic Factors
Influencing Personal Preferences in Respect to Utilitarian Objects

Ned Griner

The purpose of this study was to investigate socioeconomic factors influencing high school students' personal preferences of utilitarian objects and, further, to identify certain characteristics related to the student electing high school art. It was felt that if influential factors which were related to these preferences could be investigated, it would be helpful in determining the needs of the student in the area of high school art appreciation.

The first population tested consisted of 253 high school seniors from an industrialized midwestern city of 69,000. These students were administered the Utilitarian Object test designed for the study and each individual was classified according to socioeconomic status through the use of W. Lloyd Warner's scale. The second population, used for the purpose of testing the revised Utilitarian Object test and to explore the socioeconomic significance of aesthetic and monetary values, was very similar to the first population, using 152 seniors from the same two high schools one year after the first test was administered.

The Utilitarian Object test was a picture test illustrating seven areas of functional design which included flatware, plates, chairs, straight chairs, storage chests, clocks and lamps. Each area included three illustrations, one each for contemporary, traditional and eclectic design.

High school art experience tends to have a positive contemporary influence on the student while showing a negative relationship with the traditional.

Almost no relationship was indicated between high school art participation and socioeconomic status.

On all socioeconomic levels students' design preferences showed a similarity to parents' preferences.

A Comparison of the Effectiveness of Two Counseling Procedures with Selected Sixth Graders

William T. Groves

The study was designed to compare experimentally the effectiveness of two counseling procedures with sixth grade pupils. One group of pupils was counseled throughout a school year by a certified counselor, while a second group of pupils was counseled for a similar period only by their classroom teachers. The teachers were encouraged to consult with the counselor for advice and suggestions regarding pupil problems. The question which the study attempted to answer was:

Do sixth grade pupils who receive individual counseling by a certified counselor throughout the school year show greater gains in educational achievement, have better attendance records, and rank higher in personal and social adjustment, as rated by their teachers, than sixth grade pupils who are counseled by their classroom teachers?

Each of six classes of the entire sixth grade in the Freeport Area Joint School District, Freeport, Pennsylvania, during the 1961-62 school year, was divided into similar pairs of pupils on the basis of sex, intelligence, and achievement test scores.

Sixth grade pupils who were counseled individually by the counselor earned somewhat higher mean marks in six of seven subjects and a higher mean mark for all subjects, but none of the differences in means were found to be significant at the five per cent level of confidence.

Sixth grade pupils who were counseled individually by the counselor were rated significantly higher by their teachers on two of eleven items on the Rating Scale for Pupil Adjustment -- Over-all Emotional Adjustment and Emotional Irritability.

The Preparation of a Program in Contemporary Algebra
and a Study of Its Effectiveness for Group Instruction
Under Paced Conditions

Ralph T. Heimer

The objectives of the study were two-fold: (1) to develop a programmed course in modern elementary algebra and obtain some measure of its effectiveness; and (2) to compare the effectiveness of the programmed material presented via (a) book form for self-instruction, (b) teaching machines for self-instruction, and (c) filmstrip projection under paced conditions.

Prior to the evaluation and implementation of the fifteen-unit (2055 frames) program, a sequence of three independent trial-runs and revisions was conducted; both direct observations of individual students and group responses were taken into account.

A group of 113 Penn State students enrolled in College Algebra were randomly assigned over four treatments: (1) programmed books, (2) teaching machines, (3) filmstrip, and (4) conventional presentation. The students in the programmed book and teaching machine groups proceeded through the programmed material on a self-regulated, time limited basis; the filmstrip group proceeded through the identical programmed material, their learning pace being externally governed; and the conventional class received conventional instruction on the same subject matter covered by the program.

The fifteen programmed units were completed by each treatment group, one unit per class period; a test was administered upon the completion of each unit and a final examination was taken at the termination of the treatment period. A study guide containing review material and exercises for outside assignment was distributed to each student at the completion of each class period.

The results of the study support two conclusions: (1) the program which is submitted as an integral part of this study is an effective instrument for teaching what it was intended to teach - as measured by the several criterion examinations; and (2) the use of programmed materials for purposes of group instruction is a feasible use of such materials.

Action Research as Applied in Curriculum Development,
Grades K - 12, A Case Study

John Martin Hillkirk

This study was devised to determine whether or not action research could produce the outcomes claimed for such procedures when utilized in curriculum study in a small industrial community.

The investigator surveyed the literature and related studies in order to determine the philosophical bases for action research and to learn the techniques and procedures as they should be used in curriculum development. These findings were then tested through the project as here described.

The methods used in this study involved the identification, through a problem census, of six areas of the curriculum in the Leechburg Area Joint School, Leechburg, Pennsylvania, needing study. Six community groups including the Leechburg Area Joint School Board, the Area Joint School Faculty, the Rotary Club, the Borough Parent Teachers Association, Area Joint High School Seniors, as well as selected members of the Leechburg Area Joint High School graduating classes of 1958, 1959 and 1960 were asked to list the six areas needing particular attention and possible improvement.

Action research procedures do produce for the most part the outcomes claimed for such procedures when utilized in curriculum development in a small industrial community.

Action research as defined through the survey of literature and as utilized in the Leechburg study involves the following philosophical bases, techniques and procedures: (a) the cooperative identification of common practical problems of interest by pupils, administrators and laymen; and (b) the full, free and democratic participation of teachers, pupils, administrators and laymen in working on the problem thus identified.

Legal Principles Controlling Outcomes of Controversies
in Teacher Dismissal and Suspension in Pennsylvania

Daniel Bitler Knauer

By examination of Purdon Pennsylvania Statutes Annotated, Vale Pennsylvania Digest, Corpus Juris, Corpus Juris Secundum, and Shepard's Pennsylvania Citations, under the heading of education, many of the cases were located. They were then reviewed and grouped according to the cause for dismissal or suspension. They were further organized in relation to the particular principles involved in cases within the same cause.

By various statutory enactments, legislation has now provided for eight valid causes for termination of contract which include immorality, incompetency, intemperance, cruelty, persistent negligence, mental derangement, advocacy of or participating in un-American or subversive doctrines, and persistent and willful violation of the school laws.

There are also three listed reasons for suspension of professional employees including a substantial decrease in pupil enrollment, curtailment or alteration of the educational program, and consolidation of schools making it necessary to reduce the size of the teaching staff.

Before a dismissal can be considered final, it is essential that proof of guilt be established, the burden of which is upon the board, with the board minutes as conclusive evidence. If there is no such evidence that the conduct or behavior on the part of the professional employee has been either intentionally malicious, willfully negligent or persistently obnoxious, the courts will not uphold the decision for dismissal. When, however, the employee has been lawfully suspended or dismissed for any legal cause, there can be no recovery of salary or position.

A Quantitative Analysis of Pennsylvania Public School Utilization
of the Provisions of Title III
of the National Defense Education Act of 1958

John E. Kosoloski, Jr.

The procedure involved basically an examination and an analysis of the National Defense Education Act files in the Pennsylvania Department of Public Instruction and the structuring of screening instruments and questionnaires intended to find facts not available in the files. The pertinent information was tabulated and treated in the statistical manner which was deemed warranted.

Seventy-two per cent of the school districts of Pennsylvania participated in the provisions of the National Defense Education Act in the following pattern: mean per-pupil expenditures - \$3.21; no correlation between - top enrollment and "top" participation, per-pupil cost of participation and cost of instruction.

Participating schools utilized in-service programs, consultative services, opportunities to purchase equipment items, and publications.

It can be inferred that the National Defense Education Act funds did precisely what they were intended to do - upgrade science, mathematics and modern foreign language instruction.

The comments of the local raters of services received from provisions of the act suggest that the acquisition of equipment items in mathematics, science and modern foreign language contributed significantly to the improvement of teachers and their teaching.

The Relationship of Counselor, Principal, and Teacher Role Consensus and the Quality of Senior High School Guidance Services

Wilbur K. Kraybill

The tenth, eleventh, and twelfth grades of fourteen Pennsylvania schools, representative of the 350-700 student enrollment grouping, were used in this research. Consensus was determined by the responses of teachers, counselors, and principals of these schools to the Role Questionnaire, an instrument based upon the Evaluative Criteria of the National Study of Secondary School Evaluation. The researcher himself administered this instrument in every school.

One measure of quality was an instrument composed of external criteria items to which both counselor and principal responded in a personal interview. The other measure of quality was a questionnaire to which students answered in terms of their satisfaction with help received in various problem areas. The researcher also administered this instrument uniformly in every school.

In general the degree of role consensus among school personnel regarding specified guidance activities is moderately related to the quality of the guidance services. Six of the correlations between consensus indices and quality criteria were significant. Ten of the correlations were non-significant.

It is particularly important that teachers of a given school agree with one another, and as a group agree with their principal, in terms of their expectations as to who is supposed to perform specific guidance activities, and a program should be undertaken in order to promote role clarification.

This research also isolated useful areas of consideration for evaluation of guidance services by identifying the more discriminating items of the quality instruments.

Social Studies Interests of Second, Fourth and Sixth Grade Children
As Evidenced in Their Art, Writing, Oral Expression
and Selection of Reading Materials

Donald C. LaDue

Two hundred eighty children from three schools in an industrial city in Pennsylvania, participated in the study. Each of the three schools was representative of a different occupational group. A typical second, fourth and sixth grade was selected from each school.

An experience questionnaire was used to determine the out-of-school experiences the children had that might increase or broaden their interests in the social studies. The questionnaire was divided into two major areas: (1) experiences with audio and visual communication and (2) travel experiences.

Four thousand three hundred seventy-three samples of expressive experiences in art, writing, oral expression and reading materials selected by the children, were collected. These samples were categorized in seven areas of the expanding communities concept-home, community, state, country, hemisphere, world and universe. Two judges categorized the art and writing samples, classroom teachers categorized the samples of oral expression, and with the use of published book lists; the investigator categorized the reading materials which had been selected by the children.

Social studies interests of second, fourth and sixth grade children, regardless of grade level, encompass geographical areas from the child's own home and community to various parts of the nation, world and universe.

Social studies interests of second, fourth and sixth grade children extend to more geographical areas than are suggested by Pennsylvania's recommended social studies course of study for these grade levels.

Programmed-Instruction and Lecture-Discussion Methods
Compared for effectiveness in Teaching Agricultural Finance
to Vocational Agriculture Students

Otto Pearl Legg

The multivariate design involved 480 students in twenty schools in Pennsylvania, Delaware, Maryland, Virginia, and West Virginia, offering complete programs of vocational agriculture. Eight students in each school were randomly selected from the class in each of the three grade levels, Agriculture 9 and 10, Agriculture 11 and 12, and Young and Adult Farmer. Four students in each grade level in each school were randomly assigned to use each type of answer sheet.

A teaching unit, consisting of eight suggested lesson plans and a 53-page student information booklet, was developed for instruction in agricultural finance and credit by the lecture-discussion method. Preparation of a programmed-instruction booklet was done by rewriting and arranging the instructional material into a sequence of short steps, or frames. Students similar to those in the experiment were employed to aid in psychologically arranging the programmed unit. The 106-page programmed booklet was organized for the student to read a frame, make an overt response on a separate sheet, and slide a cover sheet down to expose the correct answer. The student could then compare his answer with the programmed answer and proceed to the next frame in the sequence. The major variables were teaching method, grade level, and answer sheet.

Students in the Young and Adult Farmer grade level made the highest scores. Students who used the erasure feedback type answer sheet made a significant gain over those who used the black-out answer sheet. The combination of older age students actively involved in farming and use of the feedback type of answer sheet resulted in greater learning.

The lecture-discussion group used an average of 12 hours while the programmed-instruction group completed the unit in an average of five hours.

Identifying Professional Commitment and Measuring Its Extent Among Selected Members of the Teaching Profession

Helen Ada Loftis

The study was conducted in fourteen public secondary schools in Allegheny County, Pennsylvania and included 246 teachers who were selected by their administrators as being committed or non-committed, according to definitions furnished by the investigator.

The teachers who participated constituted a sample which was not significantly different from a population of urban secondary teachers with respect to sex, marital status, degree held, and length of teaching experience when comparisons were made with data from a national survey conducted by the NEA. The teachers represented in this study were significantly younger than those in the NEA sample.

The development of a Measure of Professional Commitment included several pilot tests and the analysis of four preliminary forms of the instrument. The process included: determining the levels of discrimination and acceptability of items; exploration of contaminating variables; and examination of the original definition of professional commitment by using multiple regression to analyze subgroups of items identified as self understanding, social relations, creativity, autonomy, rationality, ambition, and non-fanaticism.

The Measure of Professional Commitment, Form E, used in this study was a self-report instrument containing 100 items which were found to correlate significantly with total commitment scores. With a possible scoring range of zero to 200, the mean for the 246 teachers included in the final sample was 158.72, with a standard deviation of 15.88. The scores for individuals ranged from 105 to 191; the standard error of measurement was 4.54.

Commitment to the teaching profession has been identified and described in behavioral terms. The MOPC has been shown to discriminate among teachers with varying degrees of professional commitment, to be independent of personal factors, and to relate positively to validating criteria. These promising results would seem to encourage further investigation.

The Relationship Between Teachers' Attitudes Toward Supervisors and Certain Selected Variables That Might Affect Their Attitude

John Blair Logan

A Likert-type attitude scale was developed. The items or statements in the instrument were judged as denoting positive or negative attitudes toward supervisors by fifty-seven teachers outside the population that would eventually answer the questions on the attitude scale. Twenty items were employed in the instrument. Besides the attitude scale, the questionnaire contained spaces for the teachers to indicate their position within each variable, and places for comments on various phases of teacher-supervisor relationships.

The test was designed so that a high attitude score would indicate a wholesome attitude toward supervisors. A low score would indicate that supervisors were held in low regard.

Four hundred twenty teacher questionnaires were distributed to the teachers in Cattaraugus County, New York. Three hundred twenty-one were returned.

Young teachers (20-24) and older teachers (60+) had the highest attitude scores toward supervisors. The lowest attitude scores came from teachers in the 25-29 year old group.

There seems to be no significant relationship between teachers' attitudes toward supervisors and the number of courses taken in supervision, administration, and related fields.

There is a very definite conclusive pattern that these teachers, who in the past have had good relations with supervisors, have wholesome attitude scores toward them. The data in this variable show that as good past relations with supervisors decline, the attitude toward supervisors declines proportionately.

Some Aspects of an Oral-Visual Presentation of an Achievement Test
to Educable, Mentally Retarded Pupils

John A. Long, Jr.

One hundred four educable, mentally retarded pupils in special elementary classes and 180 educable, mentally retarded pupils in special secondary classes in Union and Clinton Counties, Pennsylvania, participated in the study. Half of the pupils were given an oral-visual adaptation of the Word Meaning subtest and the Arithmetic Reasoning subtest of the Stanford Achievement Test, Form J, and a week later were given the usual written form of the same subtests of the Stanford Achievement Test, Form K. The other half of the pupils were given the oral-visual adaptation of the Word Meaning subtest and the Arithmetic Reasoning subtest of the Stanford Achievement Test, Form K, and a week later were given the usual written form of the same subtests of the Stanford Achievement Test, Form J.

A Word Recognition and Word Meaning Questionnaire constructed by the author was used to evaluate the judgments of the teachers of these pupils on word recognition proficiency and word meaning comprehension.

The word-meaning-grade-equivalents and the arithmetic-reasoning-grade-equivalents were combined from the Primary, the Elementary, and the Intermediate Batteries of the Stanford Achievement Test to determine at what mental age levels to use the oral-visual administration.

The oral-visual administration of the Word Meaning subtest from the Stanford Achievement Test can be given to pupils whose mental age levels range from 60 months to 155 months with results statistically significant at the .05 level.

The oral-visual administration of the Arithmetic Reasoning subtest from the Stanford Achievement Test can be given to pupils whose mental age levels range from 72 months to 143 months with results statistically significant at the .05 level.

Some Variables Relating to Three-Dimensional
and Two-Dimensional Art Performances: A Comparative Study

William Joseph McHale

The criterion measures used were two art performances, a three-dimensional performance and a two-dimensional performance. These performances emanated from a packet of materials which were alike for both performances. Original measures were constructed which attempted to differentiate between three-dimensional and two-dimensional on criteria of experience, training, interest, self-evaluation, and judging.

The population tested was composed of 80 university students. The population included 42 students with majors other than art and art education, and 38 students with majors in art or art education.

Using the total judgment scores and 44 variables, an intercorrelation matrix was computed. Average judge reliability coefficients were computed which resulted in r_{aa} of .89 on three-dimensional art judging, .87 on two-dimensional art judging, and .71 when both three-dimensional and two-dimensional art performances were combined.

t tests were computed between the means of comparable three-dimensional measures and two-dimensional measures where an equal opportunity of scoring existed. In addition a principal components factor analysis yielded five significant factors.

A positive relationship existed between the criterion variables and the measures of experience, interest and training. Four out of six major variables indicated significant positive relationship existing between the three-dimensional art performance and measures scored for three-dimensionality.

The art performances did not show a significant difference indicating that experience and training in two-dimensional art performance contributed to the resultant product in three-dimensional art performances.

Variables Which May Identify Successful Student Teachers of Mentally or Physically Handicapped Children

Charles Henry Meisgeier

The 41 participating student teachers, had a mean age of 21 years, and were all undergraduates in their junior or senior years from seven colleges offering training programs for students preparing to become teachers of mentally or physically handicapped children.

The sources of information consisted of (a) academic transcripts, (b) admissions records, (c) a battery of seven selected instruments, and (d) a new criterion measure--the Evaluation Record for Student Teachers of Handicapped Children (ERTHC).

Nineteen different measures of scholastic aptitude, scholastic achievement, personality, educational interest, and attitudes were found to be significantly related to the criterion measure of successful student teaching. Prior student teaching experience in a regular class was significantly not related to successful student teaching of mentally or physically handicapped children.

Three characteristic patterns of successful student teachers of mentally or physically handicapped children emerged from this investigation. The successful student teachers (a) were well adjusted, emotionally stable, successfully able to encounter the many trying situations that arise in a special class, (b) possessed the physical energy, vitality and enthusiasm necessary to meet the demands of special class teaching, (c) obtained high scores on measures of scholastic achievement and ability, and possessed a favorable attitude toward teaching and toward children.

The student teachers of mentally or physically handicapped children differed markedly from other college students and from students preparing to teach in other fields, on selected measures of personality, interest, and attitude.

Two multiple regression equations each containing five predictor variables were computed with respective multiple R's of .62 and .72 significant at the .01 level to predict success in student teaching.

A Study of the Effects of Three Teaching Methods
on the Learning of Selected Topics
in a College Physical Science Course

Raymond Earl Miller

Two hundred thirty-six students enrolled in nine classes of Basic Physical Science at Slippery Rock State College were used in the study. The nine groups were divided into three sections, each section was presented with three units of study. As each unit was studied one section acted as a control group, receiving regular classroom instruction. The other sections were experimental sections.

The first experimental section received a series of four tape-recorded lectures accompanied by illustrations. There was no contact with an instructor. The second experimental section received two tape-recorded lectures accompanied by illustrations followed by two discussion periods conducted by an instructor. The sections were rotated so that all students had a trial under each method of presentation.

The study showed that the method involving two tape-recorded lectures followed by two discussion periods and the method involving regular instructions were equally effective. The above procedures were significantly superior to the method that involved the complete use of recordings.

Those students with a high ability to do college work and those with a high reading ability showed significantly better results when taught by the method involving two recorded lectures followed by two discussion periods. There was no relationship between the methods of teaching for the other groups, other than that shown for the main problem of the study. There was no difference in effectiveness of any of the methods of teaching on the ability of the students to solve mathematical problems.

The study gave the indication that recordings are capable of reducing in part the number of hours per week that a teacher may need to spend with a given class of students. It was indicated, however, that the extreme use of recordings significantly lowers the achievement of students. The results of a student questionnaire showed that there was an extreme objection to the recordings because of boredom and monotony.

The Effects of Variables in Instructional Television on Acquisition of Information and Attitudes

John C. Muntone

The purpose of this study was to investigate the effects of closed-circuit television presentations of permissive and authoritarian type panel discussions on acquisition of information by students and on the modification of student attitudes.

During the two-week experimental period the course content was presented via televised lectures and panel discussions. The control group was composed of subjects who viewed the lectures, and the experimental group was composed of subjects who viewed the panel discussions. (First week, $N = 835$; second week $N = 847$.)

Subjects in the experimental group were divided into subgroups. One subgroup viewed a one-camera treatment of a given type panel discussion. The second subgroup viewed a two-camera treatment of a given type panel discussion. The net effect was that both subgroups heard the same discussion but saw different picture transmissions of the same panel discussion. This was made possible by transmitting simultaneously, from the same studio, a one-camera signal to one subgroup and a two-camera signal to the other subgroup. Subjects in the different subgroups occupied different viewing rooms and received the television transmission on different channels.

The second week permissive, double-camera subgroup obtained results on all measures significantly superior to other groups.

The lecture group registered a consistently favorable attitude for both weeks but scored relatively poorer on all criterion measures during the second week.

Only the second week permissive, double-camera subgroup gave evidence of marked improvement in attitude.

Permissive panel subgroups obtained significantly superior mean gains in information and attitudes when compared to authoritarian panel subgroups.

The Development of An Attitude Scale to Measure Students' Attitudes Toward Reading in the Secondary School

John Edgar Peifer

The steps used were patterned after the methods of Thurstone and Likert with a few modifications necessary for the development of the reading attitude scale.

The method of item analysis used was Item Relationship, or I. R. An I. R. coefficient was derived and was converted to a tetrachoric r coefficient. This coefficient determined the acceptability of the item. Fifteen of the fifty-four items used in the test were rejected on the basis of the tetrachoric r coefficient.

Test reliability was determined by a pre-test -- post-test situation. Test scores were compared statistically by using the Pearson Product Moment Method of Correlation. The derived coefficient was .84.

Validation of the test was accomplished by comparing the students' scores on the reading attitude scale with the ratings of experienced reading teachers. The coefficient of validation as determined by the Pearson Product Moment Method of Correlation was .58.

An attitude scale designed to measure objectively students' attitudes toward reading was developed.

Both high and low attitudes toward reading were found in all grade levels. Both high and low attitudes in reading were found in all classes (accelerated, average, and slow classes).

Significant data were collected which will help teachers to understand a variety of students' reading problems.

Selected Factors Affecting School Administrators'
and School Board Members' Attitudes
Toward Vocational Trade
and Industrial Education in Pennsylvania

Neal W. Prichard

Data were collected on two attitude scales of the Likert summated rating type; one for school board members and the other for administrators. Personal visits were made to 16 randomly selected schools that offered vocational trade and industrial education and 16 randomly selected schools without such programs. A total of 64 administrators, 32 superintendents and 32 principals, and 415 school board members were included in the study sample. The two groups of administrators, T & I and non-T & I, and the two groups of school board members were compared on the basis of attitude scores and the selected personal characteristics.

The attitudes of the school board members in communities where there was no such program in operation were somewhat different. It was found that: (1) the school board members in the blue collar occupations had significantly more favorable attitudes than the members in the white collar occupations; (2) the college graduates scored significantly lower than those who had not graduated from college; and (3) school board members who had heard of the curriculum from counselors, industry, and labor organizations had more favorable attitudes than those who had not.

Knowledge and understanding of the school board members about vocational trade and industrial education appear to be of major importance in the formation of their attitudes concerning this phase of education.

The undergraduate major of the school administrator appears to be of major importance as it affects his attitude toward trade and industrial education. Education majors were found to be significantly more favorable toward the vocational trade and industrial curriculum.

The study suggests a real need for more and better educational information and public relations for trade and industrial education.

The Effectiveness of a Selected Set of Books
in the Study of a Unit in Twelfth Grade American History

James Everett Robertson

The unit on the Civil War Era was selected and four copies of seventy-seven books pertaining to this period were obtained from paperback publishers. These books were classified at various readability levels by the use of the Dale-Chall Readability Formula.

Eight Regents sections and four teachers from the Jamestown, New York, Senior High School were involved in the study. Four twelfth grade sections were used as control groups. The control groups used only the textbook. Four other twelfth grade sections made up the experimental groups; each of these four sections used a set of books. With one exception, the teachers taught both an experimental and a control group.

Prior to the unit a Likert type attitude test was administered to all groups. After completion of the unit, this same attitude scale, an information test and a skills test were administered to all participating students. In addition to these measures, the cooperating teachers completed a questionnaire which sought their reactions and opinions regarding the use of the set of books.

The analysis of the test results led to the following findings: (1) the experimental group was superior to the control group in the attainment of the skills tested; (2) the use of a set of books was as effective in teaching information as was the use of a textbook; (3) neither the control nor the experimental group showed any significant change in attitudes; and (4) the cooperating teachers were of the opinion that the groups which used the books benefited from their use in several ways.

The Effect of the Administration of Two Federal Laws
on Secondary Mathematics in Selected States

Nevin D. Schuler

Through the analysis of Federal reports, data gathered from critical studies and the sampling of the modern mathematics skills of secondary school pupils, this thesis indicates the direction of the influence of certain sections of the National Science Foundation and the National Defense Education Acts.

A study was made of secondary school mathematics textbooks published since 1958. A Topics of Modern Mathematics Test administered in the fall of 1961 to 676 randomly chosen entering freshmen at the Pennsylvania State University was used to develop some indication of the degree to which these ideas were familiar to recent Pennsylvania high school graduates.

An examination of an unpublished study of secondary school mathematics teachers who attended National Science Foundation Summer Institutes between 1957 and 1959 indicates observable changes in their attitudes and techniques of teaching.

A survey of the Departments of Public Instruction of selected States revealed changes in the organization and operation of the mathematics education services resulting from the acceptance of Title III National Defense Education Act funds.

The administration of the National Science Foundation Summer Institute Program and the National Defense Education Act has resulted in observable changes in the organization and administration of State Departments of Public Instruction and in mathematics secondary school course content. These changes are especially apparent in the increased number of employees and the increased budget for mathematics education services. The content changes were noticed in a "Modern Math" test administered to college freshmen.

This thesis also concludes that Congress, through its plenary taxing power has since World War II, exerted a strong and growing influence over the organization, administration and supervision of a selected area of the secondary school curriculum. Present indications seem to show that this influence will continue to grow.

An Evaluation of the Team Organization Plan of Staff Utilization
in Relationship to the Educational Development of Students
in the Junior High Schools of Allentown, Pennsylvania

William Walter Sharkan

Comparisons were made of the development of students taught under the "team organization" plan of staff utilization and under the traditional plan.

Eighty students were picked from each of the four junior high schools in Allentown by a random sampling technique. Forty students in each junior high school were taught under the traditional subject-centered departmentalized method and tested in 1956. Forty students in each junior high school were taught under the "team organization" plan of staff utilization and tested in 1960. The study further sub-divided the forty students under each method in each school into a high level (I. Q. 109 and above) ability group of twenty, and a lower level (I. Q. 108 and below) ability group. The educational development of the students as measured in 1956 was compared with the educational development of the students as measured in 1960 on each of the nine sub-tests of the Iowa Tests of Educational Development. The differences in development as predicted and actually obtained were the basis of comparison. The predicted scores were based on capacity scores determined through the use of the Otis Quick Scoring Mental Ability Test.

Twenty-six out of forty comparisons in the development of low ability groups favor the "team organization" plan of staff utilization, while fourteen out of forty comparisons favor the traditional method, but none at the 5 per cent level of significance.

Thirty-two out of forty comparisons in the development of high ability groups favor the "team organization" plan of staff utilization, while eight out of forty comparisons favor the traditional method, but none at the 5 per cent level of significance.

Children taught under the "team organization" plan of staff utilization in the Allentown Junior High Schools did better academic work in the knowledge and skills of language arts, mathematics, science, and social studies than those taught by the traditional method.

Both low and high ability students improve in their educational development in the knowledge and skills of language arts, mathematics, science and social studies when taught by the "team organization" plan of staff utilization.

Opportunities for a greater and richer learning environment are provided when teachers have the time to work and to plan together under a "team organization" plan of staff utilization.

An Investigation of Individualized Reading and Basal Reading
in a Junior High School

Ray Mervin Stine

Five pre-tests were administered to twelve groups of seventh and eighth grade pupils in the Chambersburg Public Schools. The groups were equated from certain data on the pre-tests. One half of each equated pair was taught reading by the individualized method. The corresponding half was taught reading by the basal textbook method.

Instructional procedures for each method were carefully prepared. These procedures were designed to adhere to the characteristics of each method and to be distinctly different from each other. At the end of the experiment six post-tests were administered.

All the groups of pupils had gains in their vocabularies and comprehension scores as indicated by the California Reading Test, but, these gains were not statistically significant in difference when the scores of the individualized reading groups and the basal text reading groups were compared.

There were no measurable differences in the areas of vocabulary growth and comprehension, attitudes toward reading, and reading habits as measured by the California Reading Test, Strang's Incomplete Sentence Test, and Smith's Self-Analysis Test respectively.

The test results from the Pond's Reading Inventory revealed there were measurable differences, favoring the individualized groups, in the breadth of reading interest of pupils.

Data from A Reading Design indicated there were measurable differences, for both groups, in the number of books read when classified by categories.

Benefits and Employment Conditions Offered by
Pennsylvania Public Schools and Their Effects
Upon Securing and Retaining Teachers

Paul L. Stone

The first questionnaire was sent to 222 second, third, and fourth class district chief school administrators to determine the fringe benefits being offered teachers beyond those mandated by state law and the extent to which school districts participate in the payment of premiums, where required. The second questionnaire, containing eighty-seven benefits and employment conditions involving fringe benefits, benefits connected directly with the school at no cost to the employer, and benefits connected with the community and personal desires, was sent to 1320 teachers in those districts whose administrators completed and returned the first questionnaire.

School districts grant very few fringe benefits beyond those mandated by law and, in general, make little or no contribution toward the payment of premiums.

The larger the school district, the broader the fringe benefit program.

Benefits connected directly with the school are most important in securing and retaining teachers followed, in order, by community and personal desire benefits, and fringe benefits.

Sex, age, years of tenure, and class of district have little effect upon teachers' attitudes toward the various benefits and employment conditions.

Teachers tend to accept positions in school systems which are near home and relatives which this study showed to be the most important reason for both accepting and retaining positions.

Teachers are vitally concerned about personal relationships within the school.

Teachers have very little understanding of the advantages of receiving fringe benefits rather than a higher base salary.

Community factors which are most important to teachers are those dealing with the recognition of the work of the teacher and those dealing with respect teachers receive from the community.

Fringe benefits are of little importance to teachers in accepting and retaining positions. This is probably due to the fact that few school districts offer such benefits beyond those mandated by state statutes.

The Relationship of the Two-Dimensional and Three-Dimensional Creative Art Expressions of the Adolescent

Truman Henry Teed

In the design of the unstructured experiment, materials were collected from the normal classroom situation where no influences were imposed upon the teacher, students, or classroom. The second phase, structured experiment, was designed by the researcher to control some of the diversity of materials by: (1) preparing envelopes of materials to control the materials uses, (2) preparing a two-dimensional and a three-dimensional motivation presented to all the students in the study, and (3) by teaching the three seventh and three eighth grade classes as a control for the teacher variable.

The same population of one hundred and ninety-four seventh and eighth grade students was used for the unstructured and the structured experiments.

The products created in the two experiments were evaluated by three teams of three judges each on an over-all aesthetic quality criterion. The data were analyzed by analysis of variance, correlation, "t" test of mean differences, and multiple regression.

There is no significant difference in the aesthetic quality of the three-dimensional art products created by seventh and eighth grade students.

There is a significant difference evident in the aesthetic quality of the two-dimensional art products. In both experiments eighth grade girls produced significantly higher quality two-dimensional art products than seventh grade girls.

Insufficient evidence was found to indicate that adolescents will produce three-dimensional products of better aesthetic quality than they will two-dimensional products.

When given a choice the adolescent will choose three-dimensional experiences over two-dimensional experiences as evidenced by the findings in this research.

Changes in Word Recognition Threshold
as a Function of Perceptual Learning
in a Group of Mildly Mentally Retarded Subjects

Glenn Willard Thompson

The present study, in addition to applying Skinner's method to human learning, provided a test of a theoretical rationale for the improvement of reading rate viewed as a perceptual task.

Sixty subjects, selected from mildly retarded populations of Pennsylvania State Institutions, were randomly assigned to six groups. The effects of two levels of reinforcement, three training methods, upon word recognition thresholds and oral reading rates were measured.

Four letter stimulus words controlled for frequency and difficulty were presented in a Dodge-type Tachistoscope. The three training methods, presented under conditions of 4:1 verbal reinforcement and no reinforcement, were (1) recognition trials varying systematically from slow exposure times to sub-threshold levels; (2) recognition trials varying randomly about the subject's threshold; and (3) reading aloud for speed.

The successive approximation method of training produced significantly greater changes in word recognition thresholds than ordinary methods of training.

The obtained superior word recognition speed did not transfer in a measurable way to reading rates.

Sufficient training time did not appear to have been allowed for such transfer to occur.

Perceptual skill is a learnable response. However, the importance of external reinforcement in mediating such learning was not found.

The Effect of the Administrative Procedures
of Postponed and Nonpostponed Admission
Upon Personality and Achievement

Raymond S. Treon

The children were screen tested on the California Test of Mental Maturity, Kindergarten-1st-Grade 1950 Short Form and those demonstrating mental ages less than 5 years 0 months were individually tested on the Revised Stanford-Binet Intelligence Scale, Form L. Children demonstrating mental ages less than 5 years 0 months on the latter test were recommended for post postponed admission.

Initial objective data compiled at the time postponed admission was recommended, revealed no significant differences between the groups in chronological age, in mental age, and in I. Q.

Upon entrance to first-grade, a significant difference in chronological age and also in projected mental age was observed.

After three to seven years of school enrollment the California Test of Personality Form AA and the Metropolitan Achievement Test Primary II Battery were administered to collect data regarding the personality and the achievement status of the children in the two groups.

The results of this study show that after three to seven years of enrollment, children who experienced postponed admission and who are significantly older and whose projected mental age is significantly higher, demonstrate no better personal and social adjustment and achieve no better in reading, arithmetic and spelling, than the children who entered school a year younger.

In this study, it is concluded that postponed admission practices can, therefore, not be recommended on the basis of anticipated superior gains in personality status and in academic achievement.

It is recommended that future research concerning effective techniques of instruction, be directed to the area of first-grade children who have been identified as unready to cope successfully with the regular first-grade curriculum.

Methods of Identifying Community Power Structures
Utilized by Chief School Administrators
in Selected School Districts of Pennsylvania

Donald Antrim Vannan

An instrument was devised which contained a list of proposed methods of identifying leaders in the community power structures. These methods had been accumulated from a search of the literature and from the responses of the members of a graduate class in education to a situational questionnaire. Personal interviews with a selected grouping of chief school administrators and a pilot survey of chief school administrators furnished an additional number of identification methods, and provided a check on those already incorporated in the instrument.

Two hundred randomly-selected chief school administrators from selected school districts received mailed copies of the checklist. A total of 141 usable checklists from 43 superintendents and 98 supervising principals was returned.

Of the entire group of methods the ten rated most effective by the school administrators (highest to lowest in the top ten) are: (1) participating in the program and activities of local service clubs, (2) participating in local activities and events, (3) consulting the former administrator of the school district, (4) participating in groups offering some opportunities for opinion leadership, (5) consulting the local school board, (6) consulting individuals who have a relatively long period of residence in the community, (7) identifying officials of local banking establishments, (8) studying local newspapers and other local publications, (9) identifying leaders of local fund-raising drives, and (10) consulting members of the clergy.

A method, which involved consulting the local school board, was rated significantly higher by chief school administrators with six or more years of experience than by chief school administrators with from one to five years of experience.

From the analyses of this study, it is apparent that chief school administrators have used and have found effective particular methods of identifying leaders in the community power structures, and that the administrators indicate a preference for methods which involve participation and consultation with community individuals and groups.

Development of a Vocational Agriculture Interest Inventory
for Guidance of Eighth Grade Students

Robert W. Walker

A reference group of 1000 thirteen and fourteen year old eighth grade boys in twenty high schools was tested with the Kuder Preference Record - Occupational, Form D and the Pennsylvania Vocational Agriculture Interest Inventory. The criterion group was identified one year later as the Successful Vo-Ag Students, based on judgment of the teacher, counselor and principal and on the student's intention to continue in agriculture in the tenth grade.

Item analysis of student responses in the reference group and in the criterion group located answer positions with percentage differences significant at the .05 level for thirty-two items of the Kuder - Occupational, Form D and for seventy-five items of the Pennsylvania Vocational Agriculture Interest Inventory. The Kuder Vo-Ag Key and Pennsylvania Vo-Ag Key punched for the significant items, along with the published Kuder Farmer Key, were used to score the eighth grade student test papers.

The numbers of item answer positions on which the responses of the Successful Vo-Ag Students were significantly different were sufficient to justify the construction of a Kuder Vo-Ag Key and a Pennsylvania Vo-Ag Key.

High scores on the interest inventory keys were associated with student characteristics that included having fathers who farm, the students' own farming experience, desire of students to enroll in vocational agriculture, and students' awareness of parents' encouragement to enroll in vocational agriculture.

The Effect of a Teachers' In-Service Education Program on Pupils' Adjustments

Frank Byrd Weaver

It was necessary to form an experimental group which consisted of eight teachers who were involved in an intensive study of John C. Flanagan's Personal and Social Development Program. A control group of eight teachers was also formed, and this group was not involved in the in-service education program.

Both the experimental and control classes, of 30 pupils each, were administered the SRA Junior Inventory. From the 30 pupils in each of the 16 classes, 10 pupils were selected according to their scores (5 who rated high and 5 who rated low) on the adjustment inventory. These 10 pupils were observed for one semester by their teachers, and critical incidents of their personal and social behaviors were recorded. At the end of one semester, the experimental and control pupils were administered a final test of the same form. Their adjustment scores were again statistically analyzed by the analysis of variance and the t-test.

There were significantly greater gains in adjustments for the experimental classes during the semester.

The experimental and control teachers rated the study, on a whole, as very helpful.

The experimental teachers indicated that the literature which they read--pertaining to children's personal and social development--was very helpful. They gave this item twice as many very-helpful ratings as the control teachers.

Basic American History Generalizations
Necessary for the Social Studies Curriculum
in the Elementary Grades

V. Phillips Weaver

The generalizations used in the study were selected by examining eight leading college textbooks in American History published during the twentieth century. The more than 1400 generalizations extracted were categorized and synthesized into nine major themes or topics of American History. From the refined outline of generalizations, the questionnaire used in the study was developed. On the questionnaire, respondents were asked to rate 191 generalizations on a seven point scale, indicating the degree of importance of each for inclusion in the elementary school social studies curriculum.

The jury to rate the generalizations intended to include all groups which could and should influence the American History phase of the elementary school social studies curriculum: (1) professional historians; (2) curriculum specialists, including scholars in child growth and development; and (3) elementary classroom teachers.

The generalizations given high values by all three groups comprising the jury were considered to be recommended. They are basic for inclusion in the elementary school social studies curriculum.

Emphasis was placed upon the themes involving the exploration and colonization of America, Independence from England and the early history of the constitution.

Stress was placed upon the history of the migration to the new world, and on many generalizations describing the frontier and the westward movement.

Heavy stress was placed upon generalizations involving the emergence of the U.S. as a world power. Generally, the jury recommended a broad understanding of American history. However, heavy emphasis was placed upon social, rather than political and economic, aspects of the nation's past.

A Comparative Evaluation of the Roles of Ministers,
School Counselors, Parents and Others
in Assisting Youth with Life-Work Selection Problems

Robert W. Wiley

The basic objective of this thesis was to find out to whom selected respondents would customarily refer a young person for help with particular life-work selection problems, and to learn how the respondents viewed the minister's role with the particular problems. In fulfilling the thesis objective, life-work selection problems were arbitrarily delineated into ten specific areas. For each of the problem areas, a hypothetical situation was created which purported to show a selection problem which could serve as an example of the particular problem area.

These situations were constructed as true-to-life as possible, and were partly taken from actual student experiences. Selected respondents were asked to read over each situation and select from a list of referral persons those to whom they would have referred the young person to first, second, third, and on through seventh. There were seven referral persons; they were school guidance counselors, high school principals, teachers, family doctors, ministers, close friends of the same age, and parents.

Respondents were from four groups. The first was a random sampling of 250 ministers who were members of the Pennsylvania Association of Churches. The second was a random sampling of 250 guidance counselors taken from lists made available by the Pennsylvania State Department of Public Instruction. The third group was a random sampling of 250 students who were seniors in Pennsylvania high schools during the school year of 1961-1962. The fourth was a random sampling of 250 parents of Pennsylvania high school seniors.

Ministers were selected for major referrals in three of the ten problems and as having minor roles in four others. Parents and counselors were selected more frequently in that order.

An Evaluation of the Family Finance Workshops
at the Pennsylvania State University

Bayshea Bertha Wakin

This study was undertaken to determine the effect upon teachers and administrators of participating in an Education in Family Finance Workshop at the Pennsylvania State University. Each person attended a workshop for three weeks during the summer of 1960 or 1961.

A series of instruments was designed for the gathering of the data. These included: (1) a pre-inventory survey which was sent to all 75 participants before they took the workshop, (2) daily evaluation forms, (3) final summary forms, (4) a personal interview guide, and (5) a questionnaire.

Pre- and post-tests were administered to both workshop groups as a means of measuring gains in knowledge.

The follow-up procedures included: (1) personal interviews with over half of the participants (56 per cent), (2) a one-day seminar on campus in the fall following each workshop, and (3) a questionnaire sent to all participants in the fall of 1961.

There was nearly complete acceptance of the workshop by the participants in terms of content, presentation, and organization. The ratings given the various topics were consistent from year to year.

Consistent results were obtained among the personal interviews, the questionnaires, the daily evaluation forms, and the follow-up seminars.

There were definite increments in informational learning on the part of the workshop participants. This was demonstrated for the total workshop groups, for most subgroups, and for most individuals.

The Family Finance Workshop program provided the participants with materials and information that were utilized in schools, classrooms, and communities.

The program provided the confidence and impetus needed by a portion of the participants to initiate, improve, and increase their teaching of family finance topics.

Mental Retardation and Learning Under Symbolic Reinforcement in View of Self-Acceptance

Charles F. Wink

The Laurelton Self-Attitude Scale was used in determining level of self-acceptance for seventy-two girls who participated in the study. The I. Q. range was from forty-five to eighty, age range from fifteen to twenty-two, and grade level range from 1.5 to 6.0. The group of subjects was dichotomized by the scores on the Laurelton Self-Attitude Scale into a high level self-acceptance group of thirty-six subjects and a low level self-acceptance group of thirty-six subjects. Each self-acceptance group was then subdivided into three symbolic reinforcement cells each having twelve subjects.

Each of the three cells in the high level self-acceptance group had a different symbolic reinforcement condition: Cell (1) positive symbolic reinforcement: flashing green light for success; Cell (2) negative symbolic reinforcement: raucous buzzer for failure; Cell (3) negative-positive symbolic reinforcement: raucous buzzer for failure and flashing green light for success. The same pattern was followed in the three cells for the low self-acceptance group.

The learning task consisted of a non-academic paired associate learning situation on a modified Devereux teaching machine, equipped for the symbolic reinforcement conditions. The task involved the learning of numbers for eight different colors in a multiple-choice trial and error situation. A pre-test was administered and, after a lapse of two weeks, a post-test on the same material was administered for comparative purposes.

Level of self-acceptance is a significant factor in learning. The high level self-acceptance group did significantly better than the low level self-acceptance group in the paired associate learning situation.

There are significant differences in learning when different symbolic reinforcement conditions are used. Both high and low level self-acceptance groups did best under positive symbolic reinforcement. Their next most successful performance was under negative symbolic reinforcement and their poorest under negative-positive reinforcement.

Influence of Certain Factors Related to Academic Performance
of Transfer Students Admitted to the Pennsylvania State University

William Young

The purpose of the study was to investigate the changes in academic performance of the advanced standing student subsequent to admission to Penn State. All data collected for the students were coded and recorded on IBM punch cards in order to facilitate statistical analysis. Differences in mean indices of change in grade point average and aptitude examination scores were tested for significance by using a "t" test or analysis of variance technique when appropriate. The multiple regression method was used to predict Penn State performance.

The average transfer student performed favorably when compared to the regular Penn State student. The average grade point average for advanced standing students was 2.33. Two out of three transfer students had their prior grade point average decrease.

Students transferring from junior colleges made a poorer academic adjustment than those from other types of institutions. Students with higher levels of academic aptitude made better academic adjustments.

The use of the two variable regression equations developed in the study should enable the admissions officer to do an even better job.